

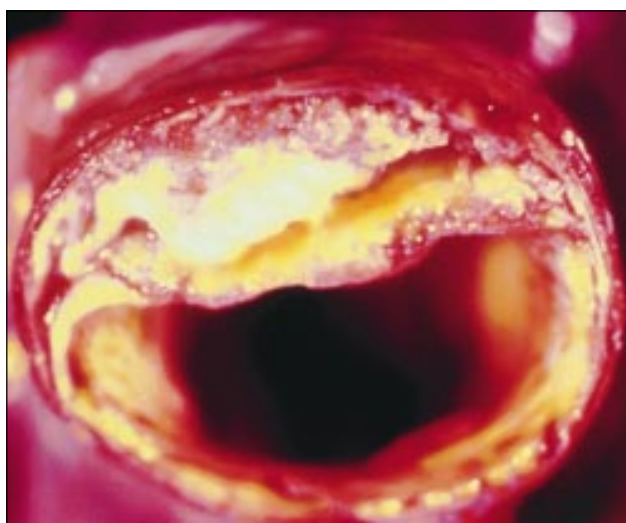
Updates for US heart disease death rates

Scott Gottlieb, *New York*

The number of deaths from heart disease has been increasing in the United States as the percentage of individuals over the age of 65 has risen, according to new figures that take into account the ageing population.

Latest figures from the American Heart Association have shown that a fifth of the US population (58.8 million Americans) currently has cardiovascular disease. The association said that its most recent projections—reflecting new statistical formulas designed to adjust for the ageing population—indicate that the burden from cardiovascular disease is increasing. The findings are part of the association's *1999 Heart and Stroke Statistical Update*, the latest report in an annual series on cardiovascular disease statistics.

According to the new standards, death rates are adjusted to the anticipated age distribution of the US population in the year 2000, based on a weighting that reflects the number of people in each 10 year age grouping. The old standard of adjusting for age used the age distribution of the population of 1940 as a baseline. The US population projection



The new standard provides a more realistic picture of heart disease

for the year 2000 includes many more older people than the 1940 figure, and, as a result, the incidence of deaths from heart disease adjusted to the year 2000 is much higher than when adjusted to the 1940 standard.

The death rate from coronary artery disease was 187.1 deaths per 100 000 in 1996, according to the new death rate calculations. The old calculation, using the 1940 population weighting, was only 86.7 deaths per 100 000. This does not indicate that the number of deaths from heart disease has doubled, but simply reflects the change in calculation methods. As the incidence of death from

heart disease has been gradually increasing as the percentage of people over 65 has increased, the new standard will provide a more realistic picture of the mortality from heart disease and will reflect the impact of an ageing population.

Among the report's other findings, nearly one in five cardiovascular deaths is attributable to smoking and more than half of all American adults have above average total cholesterol concentrations, defined as 200 g/l or higher. The cost of cardiovascular disease in 1999 was estimated at \$286.5bn (£179bn)—about \$12bn higher than last year. □

Indian surgeon challenges ban on xenotransplantation

Ganapati Mudur, *Delhi*

An Indian doctor who was arrested two years ago after transplanting pig organs into a man with end stage heart disease has said that he will continue xenotransplantation trials later this year. Dr Dhani Ram Baruah, a cardiac surgeon from India's northeastern Assam state, has also sought damages from the government for what he says was his illegal arrest and obstruction to his xenotransplantation research.

Dr Baruah transplanted a pig's heart and lungs into a 32 year old man with ventricular septal defect in January 1997.

Dr Baruah stated that he carried out the transplantation procedure on a dying patient who had failed to respond to conventional surgery, with consent from the patient and his family. The patient died of multiple infections seven days after the operation.

The state government detained Dr Baruah for 40 days, on charges that he had violated India's human organ transplantation act, before releasing him on bail. Baruah has now complained to the National Human Rights Commission that he was wrongfully arrested and

defamed because the act has no relevance to xenotransplantation procedures. Dr Baruah claimed that state health authorities had misinterpreted the act, which bans organ retrieval from live, unrelated human donors. He argued that the authorities had obstructed his research, tarnished his reputation, and prevented him from performing even routine open heart surgery by cutting off electricity and water supplies to his hospital. Baruah has sought 52 billion rupees (£800 000; \$1.3bn) as compensation.

The commission has asked the state government to respond to his allegations. It will also hold a meeting later this month with medical experts, including officials of the Indian Medical Association, to discuss xenotransplantation. □

British twin database to be floated

Roger Dobson, *Abergavenny*

A British organisation that owns what is described as the world's most comprehensive clinical database on twins is planning a stock market flotation.

Cambridge based Gemini Holdings, which is aiming to float within the next 12-18 months, has global data on more than 10 000 twins, and claims that it is the world leader in the application of the study of twin populations for the discovery of genes associated with disease. The company also carries out its own research into age related disorders, including diabetes, dementia, obesity, and osteoporosis.

Gemini's database has been compiled from several sources, and the company collaborates with 19 academic and clinical centres worldwide. Although the company was formed only four years ago, some of the data it has pulled together cover a 17 year period. Twins who take part undergo several physiological and psychiatric tests, and between 500 and 1500 pieces of data are recorded for each twin.

Access to the database is currently through subscription, licensing, or other commercial arrangement between Gemini and genetic researchers, pharmaceutical companies, and biotechnology firms. Gemini's chief executive, Dr Paul Kelly, the founder of the company, said: "Given that we collect up to 1500 clinical measurements on each twin pair and on many thousands of twins, it is the largest collection of clinical data on twins in the world. We are able to examine nature versus nurture for key clinical measurements and key disease areas. We are also able to analyse the precise environmental impact on some of these disorders."

He said that although the database is run as a commercial operation, a considerable amount of epidemiological work using the information has been published. The flotation is likely to value the company at more than £100m (\$160m). □